

Title (en)
APPARATUS FOR APPLYING EDGE OFFSET

Title (de)
ANORDNUNG ZUR ANWENDUNG EINES KANTENVERSATZES

Title (fr)
DISPOSITIF D'APPLICATION D'UN DÉCALAGE DE BORD

Publication
EP 3998773 A1 20220518 (EN)

Application
EP 21190471 A 20130108

Priority
• KR 20120005334 A 20120117
• EP 13738289 A 20130108
• CN 2013070222 W 20130108

Abstract (en)
Provided is a method generates an edge index of a current sample, and applies an edge offset corresponding to the edge index to the current sample. The edge index is generated using the differences between a current sample and two neighboring samples determined by an edge offset type. Accordingly, the difference between original samples and reconstructed samples are effectively reduced by generating the optimum edge index. Also, the quantity of bits required for reducing the differences are reduced by fixing the sign of offset to positive or negative.

IPC 8 full level
H04N 19/117 (2014.01); **H04N 19/14** (2014.01); **H04N 19/176** (2014.01); **H04N 19/86** (2014.01)

CPC (source: BR CN EP IL RU US)
H04N 19/114 (2014.11 - CN IL US); **H04N 19/117** (2014.11 - CN EP IL RU US); **H04N 19/124** (2014.11 - CN IL US);
H04N 19/14 (2014.11 - BR CN EP IL US); **H04N 19/174** (2014.11 - CN IL US); **H04N 19/176** (2014.11 - CN EP IL US);
H04N 19/196 (2014.11 - CN IL US); **H04N 19/50** (2014.11 - CN IL US); **H04N 19/513** (2014.11 - CN IL US); **H04N 19/593** (2014.11 - CN IL US);
H04N 19/86 (2014.11 - CN EP IL RU US); **H04N 19/114** (2014.11 - BR); **H04N 19/117** (2014.11 - BR); **H04N 19/124** (2014.11 - BR);
H04N 19/174 (2014.11 - BR); **H04N 19/176** (2014.11 - BR); **H04N 19/196** (2014.11 - BR); **H04N 19/50** (2014.11 - BR);
H04N 19/513 (2014.11 - BR); **H04N 19/593** (2014.11 - BR); **H04N 19/86** (2014.11 - BR)

Citation (search report)
• [X] BROSS B ET AL: "High Efficiency Video Coding (HEVC) text specification draft 6", JOINT COLLABORATIVE TEAM ON VIDEO CODING (JCT-VC)/OF ITU-T SG16 WP3 AND ISO/IEC JTC1/SC29AVG11; 7TH MEETING: GENEVA, CH, 21-30 NOVEMBER, 2011, ISO, IEC, CH, vol. JCTVC-H1003 dG, no. m24004, 21 November 2011 (2011-11-21), pages 1 - 266, XP030052529
• [X] NORKIN A: "BoG report on resolving deblocking filter description issues", 7. JCT-VC MEETING; 98. MPEG MEETING; 21-11-2011 - 30-11-2011; GENEVA; (JOINT COLLABORATIVE TEAM ON VIDEO CODING OF ISO/IEC JTC1/SC29/WG11 AND ITU-T SG.16); URL: HTTP://WFPT3.ITU.INT/AV-ARCH/JCTVC-SITE/, no. JCTVC-G1035, 28 November 2011 (2011-11-28), XP030111019
• [A] PARK S ET AL: "Non-CE12: Simplified BS calculation process", 7. JCT-VC MEETING; 98. MPEG MEETING; 21-11-2011 - 30-11-2011; GENEVA; (JOINT COLLABORATIVE TEAM ON VIDEO CODING OF ISO/IEC JTC1/SC29/WG11 AND ITU-T SG.16); URL: HTTP://WFPT3.ITU.INT/AV-ARCH/JCTVC-SITE/, no. JCTVC-G176, 8 November 2011 (2011-11-08), XP030110160
• [A] ANDERSSON K ET AL: "Modified SAO edge offsets", 98. MPEG MEETING; 28-11-2011 - 2-12-2011; GENEVA; (MOTION PICTURE EXPERT GROUP OR ISO/IEC JTC1/SC29/WG11), no. m22054, 23 November 2011 (2011-11-23), XP030050617

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2013107314 A1 20130725; AU 2013211395 A1 20140417; AU 2013211395 B2 20150813; BR 112014008256 A2 20170418;
BR 112014008256 A8 20180206; BR 112014008256 A8 20221004; BR 112014008256 B1 20231128; BR 122020018114 A2 20201103;
BR 122020018114 A8 20221004; BR 122020018114 B1 20231121; BR 122020018116 A2 20201103; BR 122020018116 A8 20221004;
BR 122020018116 B1 20231121; BR 122020018118 A2 20201103; BR 122020018118 A8 20221004; BR 122020018118 B1 20231121;
BR 122020018119 A2 20201117; BR 122020018119 A8 20221004; BR 122020018119 B1 20231121; CA 2849038 A1 20130725;
CA 2849038 C 20180403; CA 2996158 A1 20130725; CA 2996158 C 20201027; CA 3090780 A1 20130725; CA 3090780 C 20230829;
CA 3206389 A1 20130725; CN 103209324 A 20130717; CN 103209324 B 20180102; CN 107743229 A 20180227; CN 107743229 B 20200724;
CN 107835425 A 20180323; CN 107835425 B 20211119; CN 107888918 A 20180406; CN 107888918 B 20220419; CN 107888919 A 20180406;
CN 107888919 B 20211126; CN 107888920 A 20180406; CN 107888920 B 20211126; CN 107888921 A 20180406; CN 107888921 B 20220617;
EP 2749028 A1 20140702; EP 2749028 A4 20160106; EP 3998773 A1 20220518; EP 4002839 A1 20220525; EP 4002840 A1 20220525;
EP 4013052 A1 20220615; IL 231708 A0 20140528; IL 231708 A 20171130; IL 252379 A0 20170731; IL 252379 B 20181031;
IL 259929 A 20180731; IL 259929 B 20190331; IL 265035 B 20200831; IL 276270 A 20200930; IL 276270 B 20210531;
IN 3867CHN2014 A 20151016; JP 2015502715 A 20150122; JP 2016012942 A 20160121; JP 2016012943 A 20160121;
JP 2016028524 A 20160225; JP 2016029829 A 20160303; JP 2017092975 A 20170525; JP 5828967 B2 20151209; JP 6073442 B2 20170201;
JP 6073443 B2 20170201; JP 6073444 B2 20170201; JP 6073445 B2 20170201; JP 6302577 B2 20180328; KR 20140057391 A 20140512;
KR 20140067133 A 20140603; KR 20140103903 A 20140827; MX 2014004103 A 20140915; MX 336661 B 20160127; MX 340366 B 20160707;
MX 340367 B 20160707; MX 340368 B 20160707; MX 350560 B 20170911; MY 166250 A 20180622; MY 195620 A 20230202;
MY 195621 A 20230202; MY 195624 A 20230202; MY 195625 A 20230202; MY 195661 A 20230203; PH 12016502086 A1 20170327;
PH 12016502086 B1 20170327; PH 12016502087 A1 20170327; PH 12016502088 A1 20170403;
PH 12016502088 B1 20170403; PH 12016502089 A1 20170403; PH 12016502089 B1 20170403; RU 2014113084 A 20160320;
RU 2016140521 A 20181214; RU 2016140521 A3 20190219; RU 2016140522 A 20180418; RU 2016140522 A3 20190219;
RU 2016140523 A 20181217; RU 2016140523 A3 20190220; RU 2016140524 A 20181214; RU 2016140524 A3 20190220;
RU 2602986 C2 20161120; RU 2686007 C2 20190423; RU 2686008 C2 20190423; RU 2686010 C2 20190423; RU 2686819 C2 20190430;
SG 11201608492R A 20161229; SG 112016040670X A 20140428; TW 201345264 A 20131101; TW 201701652 A 20170101;
TW I558212 B 20161111; TW I604733 B 20171101; US 10063859 B2 20180828; US 2015103930 A1 20150416; US 2015110179 A1 20150423;
US 2015365667 A1 20151217; US 2015365668 A1 20151217; US 2015365704 A1 20151217; US 2015365705 A1 20151217;
US 2017064307 A1 20170302; US 9172961 B2 20151027; US 9485522 B2 20161101; US 9491488 B2 20161108; US 9491489 B2 20161108;
US 9503758 B2 20161122; US 9516348 B2 20161206

DOCDB simple family (application)

CN 2013070222 W 20130108; AU 2013211395 A 20130108; BR 112014008256 A 20130108; BR 122020018114 A 20130108; BR 122020018116 A 20130108; BR 122020018118 A 20130108; BR 122020018119 A 20130108; CA 2849038 A 20130108; CA 2996158 A 20130108; CA 3090780 A 20130108; CA 3206389 A 20130108; CN 201310014660 A 20130115; CN 201711170427 A 20130115; CN 201711170451 A 20130115; CN 201711170454 A 20130115; CN 201711170493 A 20130115; CN 201711170498 A 20130115; CN 201711170499 A 20130115; EP 13738289 A 20130108; EP 21190471 A 20130108; EP 21190472 A 20130108; EP 21190473 A 20130108; EP 21190474 A 20130108; IL 23170814 A 20140325; IL 25237917 A 20170518; IL 25992918 A 20180610; IL 26503519 A 20190225; IL 27627020 A 20200725; IN 3867CHN2014 A 20140522; JP 2014543766 A 20130108; JP 2015206032 A 20151020; JP 2015206033 A 20151020; JP 2015206034 A 20151020; JP 2015206035 A 20151020; JP 2017000212 A 20170104; KR 20147010076 A 20130108; KR 20147010088 A 20130108; KR 20147010089 A 20130108; MX 2014004103 A 20130108; MX 2015009840 A 20130108; MX 2015009935 A 20140404; MX 2015009936 A 20140404; MX 2015009937 A 20130108; MX 2016008276 A 20130108; MY PI2014000910 A 20130108; MY PI2018000810 A 20130108; MY PI2018000811 A 20130108; MY PI2018000812 A 20130108; MY PI2018000813 A 20130108; MY PI2018000814 A 20130108; PH 12016502086 A 20161020; PH 12016502087 A 20161020; PH 12016502088 A 20161020; PH 12016502089 A 20161020; RU 2014113084 A 20130108; RU 2016140521 A 20130108; RU 2016140522 A 20130108; RU 2016140523 A 20130108; RU 2016140524 A 20130108; SG 10201608492R A 20130108; SG 11201400670X A 20130108; TW 102101699 A 20130116; TW 105130064 A 20130116; US 201314349451 A 20130108; US 201414588036 A 20141231; US 201514834153 A 20150824; US 201514834161 A 20150824; US 201514834165 A 20150824; US 201514834173 A 20150824; US 201615350371 A 20161114